

**DETAILED ACTION**

***Specification***

1. The abstract of the disclosure is objected to because the phrase "the present invention" and "Figure 3" need to be deleted. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

2. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 1 the phrase "of the type" is vague and indefinite and has no antecedent basis.

In claim 1, lines 2 and 7 the phrase "adapted to" is not a positive recitation of the claimed limitation and should be more changed to more clearly recite the claimed subject matter.

In claim 2, line 1 the phrase "of the type" is vague and indefinite and has no antecedent basis.

In claim 2, lines 2 and 7 the phrase "adapted to" is not a positive recitation of the claimed limitation and should be more changed to more clearly recite the claimed subject matter.

In claim 7, line 2 the phrase "adapted to" is not a positive recitation of the claimed limitation and should be more changed to more clearly recite the claimed subject matter.

In claim 9, line 3 the phrase "adapted to" is not a positive recitation of the claimed limitation and should be more changed to more clearly recite the claimed subject matter.

In claim 10, line 3 the phrase "adapted to" is not a positive recitation of the claimed limitation and should be more changed to more clearly recite the claimed subject matter.

In claim 10, line 5 "the pull-type switch" has no antecedent basis.

In claim 11, line 3 the "pull-type switch" has no antecedent basis.

In claim 16, line 2 the phrase "adapted to" is not a positive recitation of the claimed limitation and should be more changed to more clearly recite the claimed subject matter.

In claim 18, line 2 the phrase "adapted to" is not a positive recitation of the claimed limitation and should be more changed to more clearly recite the claimed subject matter.

In claim 19, line 5 "the push-button" has no antecedent basis.

In claim 20, line 2 "said push-button" has no antecedent basis.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deming in view of Billerbeck.

Deming discloses in the figures a power operated door opening and closing system mountable to the ceiling comprising an electric drive motor 12; an electric motor control unit 17; and a momentary push-button switch 26 to control motor operation. A momentary push-button utilizes a spring to return the button to the rest position after operation.

Deming does not disclose the string or conversion mechanism.

Billerbeck teaches a controller for a garage door including a switch having pushbutton 9; a conversion mechanism 14; and string or similar contrivance 27. The string is provided with a certain elasticity. An elastic member or spring 26 is provided along the string. The mechanism converts the pulling of the string into a pressure upon the push-button. The mechanism defines a displacement of the string. The displacement includes a resting position of the string corresponding to one of the ends of the displacement path.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Billerbeck to Deming to utilize a string and a mechanism for conversion of the pull of the string to the pushing of the momentary push button of Deming because this is for the purpose allowing easier access by both adults and children for operation of the garage door.

5. Claims 2 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deming as modified by Billerbeck as applied to claims 1 and 3-7 above, and further in view of Szpur.

Deming as modified by Billerbeck discloses all of the claimed limitations with the exception of the switch being a pull-type switch.

Szpur teaches that both push-buttons and pull-type switches can be utilized to operate a garage door system.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Szpur to utilize a pull switch rather than a push button with the conversion mechanism being connected to the pull of the pull switch because this is for the purpose of extending the reach of the pull so that children or shorter people may be able to operate it.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deming in view of Billerbeck as applied to claims 1 and 3-7 above, and further in view of Agnese.

Deming as modified by Billerbeck teaches all of the claimed limitations with the exception of providing a string path inverting loop for mounting to the system's casing, a wall or a ceiling.

Agnese teach a wall mounted switch mechanism including string 13; switch operator 11; and path inverting loop formed by pulley 14 attached to the ceiling of the casing.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Agnese to Deming as modified by Billerbeck to provide a string path inverting loop because this is for the purpose of being able to adjust placement of the string relative to the push-button switch and also because it can be utilized to adjust the force necessary to operate the switch.

7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deming as modified by Billerbeck as applied to claims 1 and 3-7 above, and further in view of Atkin.

Deming as modified by Billerbeck teaches all of the claimed limitations with the exception of the transmission member for operation of the switch via both direct and indirect actuation.

Atkin teaches a switch in which the button 47 forms both the direct actuation member and the transmission member for receiving either direct actuation or indirect actuation via string 21.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Atkin to Deming as modified by Billerbeck to form the push button or other member, such that the switch can be operated by both direct and indirect actuation because this ensure that the switch can be operated both at a distance by the string or directly via the button itself.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deming in view of Billerbeck as applied to claims 1 and 3-7 above, and further in view of the Background of the Invention.

Deming as modified by Billerbeck discloses all of the claimed limitations with the exception of a second pushbutton switch connected in parallel to the pushbutton or pull-type switch and located on the system's casing.

The background of the invention teaches that it is well known that garage door systems include a second push-button on the casing and in parallel to the first push-button switch.

It would have been obvious to one of ordinary skill in the art to apply the teachings of The Background of the Invention to provide a push-button switch on the casing and in parallel to the first pushbutton because this is for the purpose of providing a separate switch capable of turning the garage door opener on/off at the system location providing safety when maintenance is required.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deming as modified by Billerbeck and Szpur as applied to claims 1-7 and 12-16 above, and further in view of Agnese.

Deming as modified by Billerbeck and Szpur teaches all of the claimed limitations with the exception of providing a string path inverting loop for mounting to the system's casing, a wall or a ceiling.

Agnese teach a wall mounted switch mechanism including string 13; switch operator 11; and path inverting loop formed by pulley 14 attached to the ceiling of the casing.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Agnese to Deming as modified by Billerbeck and Szpur to provide a

string path inverting loop because this is for the purpose of being able to adjust placement of the string relative to the push-button switch and also because it can be utilized to adjust the force necessary to operate the switch.

10. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deming as modified by Billerbeck and Szpur as applied to claims 1-7 and 12-16 above, and further in view of Atkin.

Deming as modified by Billerbeck and Szpur teaches all of the claimed limitations with the exception of the transmission member for operation of the switch via both direct and indirect actuation.

Atkin teaches a switch in which the button 47 forms both the direct actuation member and the transmission member for receiving either direct actuation or indirect actuation via string 21.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Atkin to Deming as modified by Billerbeck and Szpur to form the push button or other member, such that the switch can be operated by both direct and indirect actuation because this ensure that the switch can be operated both at a distance by the string or directly via the button itself.

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deming as modified by Billerbeck and Szpur as applied to claims 1-7 and 12-16 above, and further in view of the Background of the Invention.

Deming as modified by Billerbeck and Szpur discloses all of the claimed limitations with the exception of a second pushbutton switch connected in parallel to the pushbutton or pull-type switch and located on the system's casing.

The background of the invention teaches that it is well known that garage door systems include a second push-button on the casing and in parallel to the first push-button switch.

It would have been obvious to one of ordinary skill in the art to apply the teachings of The Background of the Invention to provide a push-button switch on the casing and in parallel to the first pushbutton because this is for the purpose of providing a separate switch capable of turning the garage door opener on/off at the system location providing safety when maintenance is required.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Carter, Suzuki et al, Olson et al, Goodwin et al, Wang, Liao et al, and Dutkiewicz teach various methods of providing an extender to a switch for making the switch easier to operate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Friedhofer whose telephone number is 571-272-1992. The examiner can normally be reached on Mon-Fri 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Michael A. Friedhofer  
Primary Examiner  
Art Unit 2832

/Michael A. Friedhofer/  
Primary Examiner, Art Unit 2832